Emerging models and paradigms for stem cell ageing.

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Public Summary:
This review highlights how aging affects tissue stem cells and, subsequently, tissue homeostasis. In particular, we discuss how findings in invertebrate model organisms (such as worms, flies, and yeast) are providing significant insight into how and why stem cell behavior changes during aging.

Scientific Abstract:
Ageing is accompanied by a progressive decline in stem cell function, resulting in less effective tissue homeostasis and repair. Here we discuss emerging invertebrate models that provide insights into molecular pathways of age-related stem cell dysfunction in mammals, and we present various paradigms of how stem cell functionality changes with age, including impaired self-renewal and aberrant differentiation potential.